

core dump with noah test case ...

[knemunai](#) 50 posts since

Apr 16, 2008 I've been over and over my compile log and there aren't any errors and the only warning is in regards to clm and I've been previously told to ignore it. I have tried the noah test case using mpich and a single processor. It core dumps every time with a single processor. Whether on a single processor or in parallel, it never makes it past getting the 2nd forcing file. I'm using the sample lis.config for the noah test case and the only changes made were to send the output to scratch and removing a "/" in the path to the GDAS forcing because I noticed a "/" in the lisdiag file. I'm using a version of LIS that I just checked out today (r1385). I successfully ran the nldas forcing test case earlier today. How can I figure out what is going wrong?

From the end of lisdiag

Reading the GDAS elevation ./input/UMD-25KM/gdas_T170_elev.1gd4r

Getting new time1 data

Reading GDAS file1

./input/FORCING/GDAS/200210/2002102900.gdas1.sfluxgrbf00.sg

Getting new time2 data

Reading GDAS file2

./input/FORCING/GDAS/200210/2002102900.gdas1.sfluxgrbf03.sg

endrun is being called Tags: noah, testcase

[geiger](#) 19 posts since

Sep 20, 2007 **1. Re: core dump with noah test case** Jun 19, 2008 10:49 AM

Hello Kodi,

Are you able to inspect the core files to see where or why LIS is crashing?

Have you tried running the GDAS testcase?

Based on some of your other posts, it seems that you are having problems running LIS consistently on OU. Are you able to run LIS in a debugger to see exactly where you are crashing? You may have to sprinkle print statements in your code to locate the crash.

Jim

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Apr 16, 2008 **2. Re: core dump with noah test case** Jun 19, 2008 4:07 PM

in response to: [geiger](#) Jim,

I've never had to inspect a core file before so that will take some time.

I'm currently running through several test cases. So far, the test cases that have completed their runs (output not checked yet) are: GDAS and NLDAS base forcing, CEOP supplemental forcing, and CLM2 land surface model.

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The test cases that have not completed their runs are: Noah (core dump), Mosaic (core dump), and NLDAS2 (0: DEALLOCATE: memory at (nil) not allocated).

My list of runs to do: SCAN supplemental forcing and Stage IV supplemental forcing, and the rest of the LSMs.

There really was no rhyme or reason as to why I chose these test cases. I figured I would try as many as possible. I plan to go back and re-attempt the ones that crashed to make sure I didn't make any mistakes like forgetting to change the number of processors in lis.config.

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Apr 16, 2008 **3. Re: core dump with noah test case** Jun 20, 2008 4:15 PM

in response to: [knemunai](#) So, I found out our computer has pgdbg. I recompiled LIS with -g and attempted to use pgdbg (had to use text mode unfortunately). I don't know if this helps at all, but this is what it printed out:

libstdc++.so.6 loaded by ld-linux-x86-64.so.2.

librt.so.1 loaded by ld-linux-x86-64.so.2.

libm.so.6 loaded by ld-linux-x86-64.so.2.

libc.so.6 loaded by ld-linux-x86-64.so.2.

libpthread.so.0 loaded by ld-linux-x86-64.so.2.

libgcc_s.so.1 loaded by ld-linux-x86-64.so.2.

ERR: Stopping.

Signalled SIGABRT at 0x378DB2E21D, function __GI_raise, file interp.c

378DB2E21D: 48 3D 0 F0 FF FF cmpq \$0xFFFFFFFFFFFFFFFF000,%rax

The -core option printed:

libstdc++.so.6 loaded by ld-linux-x86-64.so.2.

librt.so.1 loaded by ld-linux-x86-64.so.2.

libm.so.6 loaded by ld-linux-x86-64.so.2.

libc.so.6 loaded by ld-linux-x86-64.so.2.

libpthread.so.0 loaded by ld-linux-x86-64.so.2.

libgcc_s.so.1 loaded by ld-linux-x86-64.so.2.

libnss_files.so.2 loaded by ld-linux-x86-64.so.2.

libnss_dns.so.2 loaded by ld-linux-x86-64.so.2.

libresolv.so.2 loaded by ld-linux-x86-64.so.2.

Loaded: /home/jmonroe/LIS1390debug/LIS core.4767

Signalled SIGABRT at 0x2A95B2B21D, function <unknown-address>

2A95B2B21D: 0 0 addb %al,(%rax)

I will keep messing around with pgdbg.

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Sep 20, 2007 **4. Re: core dump with noah test case** Jun 20, 2008 5:41 PM

core dump with noah test case ...

in response to: [knemunai](#) Hello,

I just fixed a bug that you will run into. Would you please update your code and try the debugger again?

Thanks,

Jim

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Apr 16, 2008 5. **Re: core dump with noah test case** Jun 20, 2008 11:13 PM

in response to: [geiger](#) THANK YOU SO MUCH!!!! Whatever bug you fixed made my test cases run again.

I ran both the Noah and Mosaic test cases and they both completed. I will more test cases later this weekend and on Monday and I will double-check the output.

You may already know about this but I noticed the following in the lisdiag files for the Mosaic, Noah, and CLM test cases:

Could not find correct forcing parameter in file

./input/FORCING/GDAS//200210/2002102912.gdas1.sfluxgrbf00.sg

[geiger](#) 19 posts since

Sep 20, 2007 6. **Re: core dump with noah test case** Jun 23, 2008 10:38 AM

in response to: [knemunai](#) Hello,

I just want to be clear.

Do you get this message:

Could not find correct forcing parameter in file

./input/FORCING/GDAS//200210/2002102912.gdas1.sfluxgrbf00.sg

after the update on Friday, 20 June?

Jim

[knemunai](#) 50 posts since

Apr 16, 2008 7. **Re: core dump with noah test case** Jun 23, 2008 10:49 AM

in response to: [geiger](#) Jim,

Yes, that line appears in the lisdiag file for the Noah and Mosaic test cases, maybe even CLM2, after the update on Friday. The test cases still complete and I only see that message for that particular date and time.

-Kodi

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Apr 16, 2008 8. **Re: core dump with noah test case** Jun 23, 2008 3:09 PM

core dump with noah test case ...

in response to: [geiger](#) I also noticed that the input data for the NLDAS2 test case has data for 2000-2001 but the lis.config for the NLDAS2 test case uses 1985 for the starting and ending years. Before realizing this, I ran LIS through pgdbg and got:

libstdc++.so.6 loaded by ld-linux-x86-64.so.2.

librt.so.1 loaded by ld-linux-x86-64.so.2.

libm.so.6 loaded by ld-linux-x86-64.so.2.

libc.so.6 loaded by ld-linux-x86-64.so.2.

libpthread.so.0 loaded by ld-linux-x86-64.so.2.

libgcc_s.so.1 loaded by ld-linux-x86-64.so.2.

Signalled SIGSEGV at 0x6CD1F5, function neighbor_interp, file ../interp/neighbor_interp.F90, line 130

6CD1F5: F BE 4 8 movsbl (%rax,%rcx),%eax

I can't run the stage IV test case either. The file it is referring to exists.

libstdc++.so.6 loaded by ld-linux-x86-64.so.2.

librt.so.1 loaded by ld-linux-x86-64.so.2.

libm.so.6 loaded by ld-linux-x86-64.so.2.

libc.so.6 loaded by ld-linux-x86-64.so.2.

libpthread.so.0 loaded by ld-linux-x86-64.so.2.

libgcc_s.so.1 loaded by ld-linux-x86-64.so.2.

Copen: Attempting to open file = ./input/FORCING/STIV/200210/ST4.2002102902.01h

Fortran Unit = 10

UNIX File descriptor: 8

GRIB Edition: 71

FORTTRAN STOP

(Process Exited)

-Kodi

[geiger](#) 19 posts since

Sep 20, 2007 9. **Re: core dump with noah test case** Jun 23, 2008 3:09 PM

in response to: [knemunai](#) Hello,

There is an error on the LIS web site. The NLDAS2 testcase pointed to the wrong input and output files. I have fixed the links.

The NLDAS2 testcase does use 1985 input data.

Please download again the NLDAS2 testcase.

Jim

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Apr 16, 2008 10. **Re: core dump with noah test case** Jun 24, 2008 2:04 PM

in response to: [geiger](#) Jim,

I downloaded the new input data, but it still isn't working (core dump). I'm getting the same/very similar message with the NLDAS2 test case (see below) that I was getting last Fri before the update with the Noah test case (Noah test case still running fine today). Is it possible that there is another file that needs the same bug fix that was done on Friday?

ERR: Stopping.

Signalled SIGABRT at 0x378DB2E21D, function __GI_raise, file interp.c

378DB2E21D: 48 3D 0 F0 FF FF cmpq \$0xFFFFFFFFFFFFFFFF000,%rax

The NLDAS2 test case is also producing a fort.11 file (see below). "No array found named height of atmospheric forcing" jumped out at me. Is this something that should be labeled in the NLDAS2 section of lis.config?

20080624 125927.933194 ERROR PET0 ESMF_Config.F90 328 ESMF_ConfigFindLabel la
bel not found

20080624 125927.933237 ERROR PET0 ESMF_Config.F90 328 ESMF_ConfigFindLabel la
bel not found

20080624 125927.972300 ERROR PET0 ESMF_Config.F90 328 ESMF_ConfigFindLabel la
bel not found

20080624 125927.972341 ERROR PET0 ESMF_Config.F90 328 ESMF_ConfigFindLabel la
bel not found

20080624 125927.972375 ERROR PET0 ESMF_Config.F90 328 ESMF_ConfigFindLabel la
bel not found

20080624 125933.379954 ERROR PET0 ESMF_Config.F90 328 ESMF_ConfigFindLabel la
bel not found

20080624 125933.380001 ERROR PET0 ESMF_Config.F90 328 ESMF_ConfigFindLabel la
bel not found

20080624 125933.380036 ERROR PET0 ESMF_Config.F90 328 ESMF_ConfigFindLabel la
bel not found

20080624 125937.779940 ERROR PET0 ESMF_State.F90 1230 ESMF_StateGetArray no
Array found named Height of Atmospheric Forcing

-Kodi